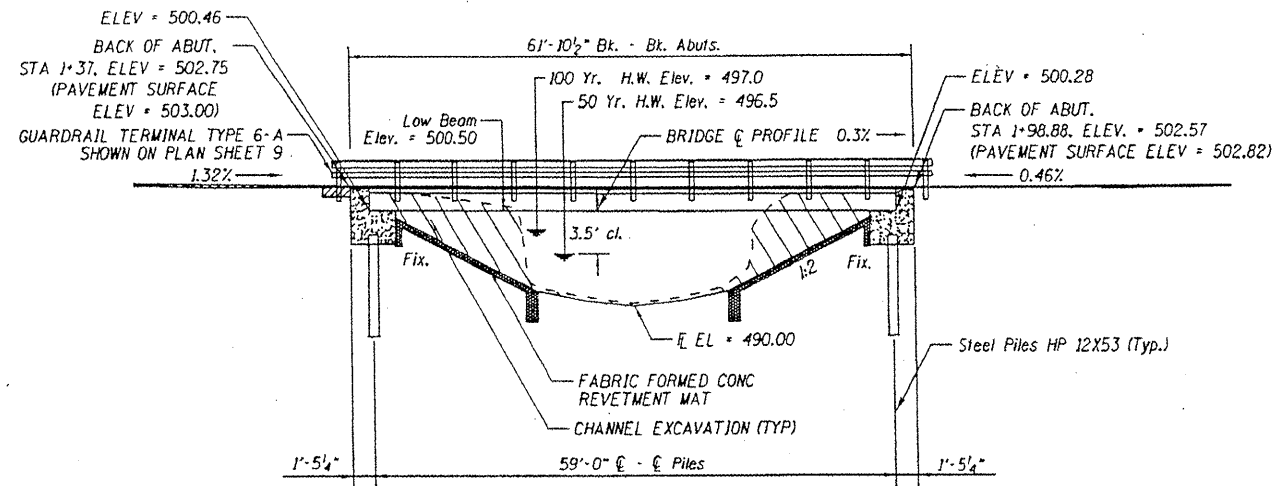


SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
08-00037-02-BR	PEORIA	21	10
ILLINOIS		CONTRACT #89372	

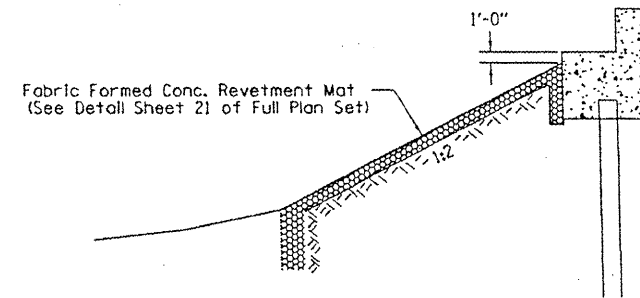
SHEET 1 OF 8

WEST BRANCH LAMARSH CREEK
BUILT 200. BY
PEORIA COUNTY HIGHWAY DEPT.
SEC. 08-00037-02-BR
EXISTING STR. NO. 072-3063
PROPOSED STR. NO. 072-5704

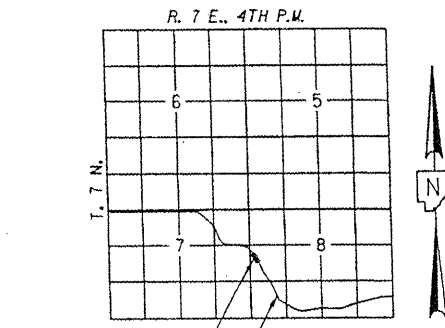
NAME PLATE
SEE STD. 515001



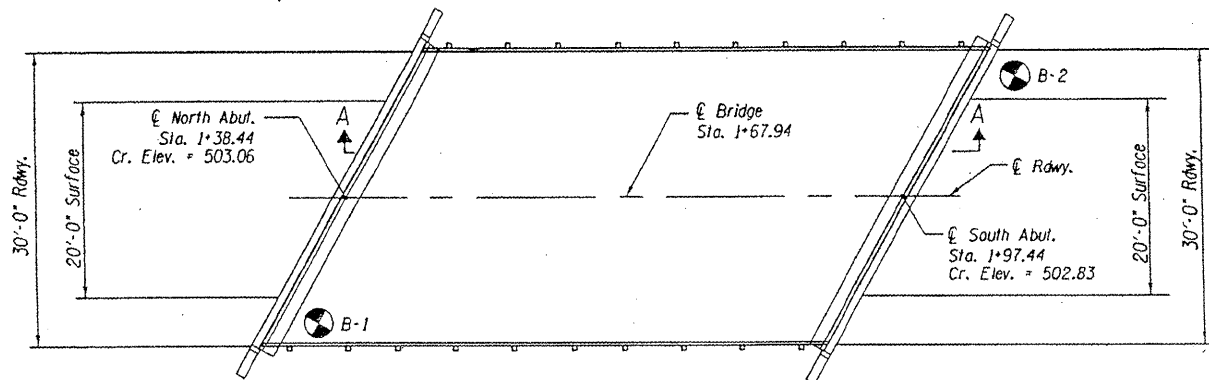
ELEVATION



SECTION A-A



LOCATION SKETCH



PLAN

TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	EACH			1
Concrete Structures	CU. YD.		25.8	25.8
Precast Prestress Concrete Deck Beams (27" Depth)	SQ. FT.	1800		1800
Reinforcement Bars	POUND		3100	3100
Name Plates	EACH			1
Steel Railing, Type SM	FOOT	120		120
Portland Cement Mortar Fairing	FOOT	540		540
Channel Excavation	CU. YD.			278
Waterproofing Membrane System	SQ. YD.	200		200
Test Piles Steel HP 12X53	EACH		120	120
Furnishing Steel Piles HP 12X53	FOOT		120	120
Driving Piles	FOOT		120	120
Pile Shoes	EACH		10	10

DESIGN STRESSES

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_D) = 0.08g
Design Spectral Acceleration at 0.2 sec (S_0) = 0.18g
Soil Site Class = C

WATERWAY INFORMATION

Flood	Frequency Year	Discharge C.F.S.	Opening Sq. Ft.		Natural H.W.E.	Head - Ft.		Headwater Elev.	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
			Low Grade Elev. =			Maximum Recorded H.W.E. = NA			
10	880	105	140	495.2	1.4	0.2	496.6	495.4	
Design	50	1570	155	200	496.5	2.8	0.3	499.3	496.8
Base	100	1900	176	220	497.0	3.4	0.3	500.4	497.3
Overtopping	500	2760	226	400	497.8	5.0	0.4	501.8	498.2
Max. Calc.									

10 Year Velocity through Existing Structure = 10.9 fps 10 Year Velocity through Proposed Structure = 6.2 fps

PRECAST PRESTRESSED UNITS

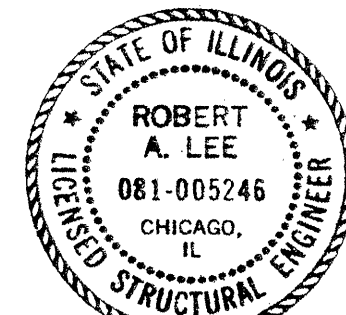
$f'_c = 6,000$ psi
 $f'_cl = 5,000$ psi
 $f'_s = 270,000$ psi (1/2" ϕ low lax. strands)
 $f'_sl = 201,960$ psi (1/2" ϕ low lax. strands)
 $f_y = 60,000$ psi (Reinf.)

LOADING HL 93

Design Specifications: 2008 AASHTO LRFD with all applicable interims.
50#/Sq.Ft. included in dead load for future wearing surface.

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".

Robert A. Lee
ILLINOIS STRUCTURAL NO. 081-005246



Expires 11-30-2010

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 072-5704

PEORIA COUNTY HIGHWAY DEPT.



MCCULLOUGH ROAD BRIDGE #072-5704
6915 W. PLANK ROAD
PEORIA, ILLINOIS 61604

REVISIONS			
NO.	DATE	DESCRIPTION	APPROVED

DESIGNED: AJS
DRAWN: AJS/JLA
CHECKED: EEA/RA
DATE: 06/10/09



ILLINOIS PROFESSIONAL DESIGN FIRM PE/SE LICENSE #181-001138